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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,584	01/09/2002	Thomas Olinga	MM 4490 (PCT)	5669

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EXAMINER
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VIJAYAKUMAR, KALLAMBELLA M

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 04/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/030,584

Applicant(s)

OLINGA ET AL.

Examiner

Kallambella Vijayakumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,9-14,17-24 and 26 is/are rejected.
- 7) ☒ Claim(s) 7,8,15,16,25 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 01/09/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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*Detailed Action*

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- This application is a 371 of PCT/FR00/02017 claiming a priority over French Application 99/09088 filed 07/13/1999. Claims 1-27 are currently pending with the application.
- The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
- The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the examiner on form PTO-892 has cited the references and/or the applicants have them provided on PTO-1449, they have not been considered.

The information disclosure statement (IDS) submitted on 01/09/2002 that was filed with the application has been considered by the examiner.

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*Claim Rejections - 35 USC § 112*

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- Claims 1-3, 23 and 26 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-2, 23 and 26, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 3, the phrase "may be" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

*Claim Rejections - 35 USC § 102*  
*Claim Rejections - 35 USC § 103*

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- The use of phrase “for the manufacture of polyaniline films” in claim-1 and “for the manufacture of a conductor composite material” in claim-2 have not been treated with patentability. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

The examiner construes this language as “Intended Use” and not treated with merits for patentability.

1. Claims 1, 3, 5-6, 21, 23-24 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Tani et al (JP 08-1000060).

Tani et al disclose a composition comprising of emeraldine type PANi, an aromatic sulfonic dopant, and an inert polymer of polymethylmethacrylate dispersed in an organic solvent, and coating of an antistatic film on a substrate. The dopants disclosed in claim-2 would meet the limitations of the dopant in instant claims 1, 5-6, 23 and 27. The coating of the film from the solution and removal of solvent by evaporation would meet the limitation of instant claim-21. The conductive film would meet the limitation of claims 23-24 and 26. Tani et al further teach the use of trichloroacetic acid in the doping of the PANi that would meet the limitation of a carboxylic-acid/solvent in claim 3 (Abstract, Claims 1-2, Section:0010, 0023, 0026, 0027, 0032, 0039, 0042). All the limitations of the instant claims are met.

The reference is anticipatory.

2. Claims 1-6, 9-14, 17-24 and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Tani et al (JP 08-1000060) in view of Kirmanen et al (US Patent 5,585,040) or Ikkala et al (US Patent 5,783,111) or Wan-Cheung et al (US patent 5,908,898).

The disclosure by Tani et al on the coating solution and the film/composite is set forth as above in Rejection-1.

Tani et al do not disclose either the use of a plasticizer or the use of dichloroacetic acid as the solvent or the concentration of PANI or the molar ratio of PANI to the doping agent in the composition of the coating solutions.

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Kirmanen et al teach the use of dichloroacetic acid as a dopant for emeraldine/PANI that would obviously function as a solvent/co-solvent, and the use of a plasticizer along with an insulating polymer to aid the mixing of polymers with the benefit of the conductive polymer material to be more useful than without the plasticizer (Col-2, Lines: 30-32; Col-8, Lines: 15-25; Col-14, Lines: 41).

Ikkala et al teach doping of emeraldine/PANI with sulfonic acids in solutions, the compositions further containing insulative matrixes of polymethylmethacrylate (PMMA) and the benefits of added plasticizers. Ikkala et al further disclose the amount of conductive polyanilines to be at concentrations of less than 1% w/w in the composition (Col-3, Lines: 54-67, Col-7, Lines: 45-50). Ikkala et al also teach the amount of a protonic acid added to the polyaniline in the composition to be in the range of 0.1 to 0.6 moles of protonic acid per substituted or unsubstituted protonic acid (Col-13, Lines: 38-44).

Wang-Cheung et al teach the benefits of plasticizers such as diesters of phthalate in the film forming compositions comprising/PANI doped with sulfonic acids with the benefit of superior performance (Col-4, Lines: 1-24).

It would have been obvious to one with ordinary skill in the art to modify the doped PANI coating compositions of Tani et al with the teachings of Kirmanen et al at the time of the invention was made, to benefit from the addition of dichloroacetic acid and a plasticizer in the composition with improved coating and conductivity because Kirmanen et al teach these variations in the analogous art, and/or vary the ratio of the dopant to PANI in presence of a non-conducting binder and a plasticizer per the teachings of with the teachings of Ikkala et al to benefit from optimized conductivity and coating solutions because the teachings are

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in the analogous art and variations were taught by Ikkala, and further optionally improvise the formulation with the teachings of Wang-Cheung by using diphthalates as plasticizers in the composition to benefit from the superior coating and conductivity performance of the films, because all the teachings and disclosures are in the analogous art, and with the expectation of reasonable success in obviously arriving at the limitations of the instant claims by the applicants.

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*Allowable Subject Matter*

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- Claims 7-8, 15-16, 25 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record neither teaches nor fairly suggestive of DEHEPSA as the dopant in the coating compositions or a polyaniline film and a composite with the ratios per the limitations of the instant claims by the applicants..

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*Conclusion*

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- The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tani et al (JP 08-120167 and JP 08-041322).



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- Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 571-272-1324. The examiner can normally be reached on M-Th, 07.00 - 16.30 hrs, Alt. Fri: 07.00-15.30 hrs.
- If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kmv  
04/04/2004

  
Mark Kopec  
Primary Examiner